II.   CLAIM AMENDMENTS

1. (Currently Amended)   A method ~~for reducing visual artefacts due to block boundaries between decoded image blocks in a frame of a digital video signal~~, comprising:

> performing an adaptive block boundary filtering operation on a block boundary formed between a first decoded image block on a first side of the block boundary and a second decoded image block on a second side of the block boundary, the first decoded image block having been encoded using a first type of prediction encoding method and the second decoded image block having been encoded using a second type of prediction encoding method,_ ~~;and~~

> ~~examining the types of the first and second prediction encoding methods to~~wherein ~~determine a value of~~ at least one parameter of the ~~adaptive block boundary~~filtering operation is determined ~~performed on the block boundary~~ based on the types of the first and second prediction encoding methods.

2. (Previously presented)   A method according to Claim 1, wherein the adaptive block boundary filtering operation performed on the block boundary is dependent at least in part on a region type of an image block on a first side of the block boundary and a region type of an image block on a second side of the block boundary.

3. - 5. (Cancelled)

6. (Currently Amended)   A method according to Claim 1, wherein said at least one parameter is selected from a group comprising: a number of pixels to be examined, a number of pixels to be filtered, ~~an activity measure providing an indication of the difference between pixel values on one side of the block boundary, a~~a size of a filtering window.

7. (Previously presented)   A method according to Claim 1, comprising selecting a number of pixels for examination from at least one side of the block boundary, in

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dependence on the image content of the frame in the environment of the block boundary.

8. (Previously presented) A method according to Claim 7, wherein the number of pixels selected for examination depends on a difference in pixel value between pixels across the block boundary.

9. (Previously presented) A method according to Claim 7, wherein the number of pixels selected for examination depends on the size of a quantization step used to quantize coefficients used in encoding the image blocks.

10. (Cancelled)

11. (Previously presented) A method according to Claim 7, further comprising truncating the number of pixels selected for examination in dependence on the type of prediction encoding method used to encode an image block in the environment of the block boundary to give a truncated number of pixels for examination.

12. (Cancelled)

13. (Previously presented) A method according to Claim 1, comprising selecting certain pixels to be filtered and determining a new value for each pixel to be filtered on the basis of pixels that appear in a filtering window set around the pixel.

14. (Previously presented) A method according to Claim 7, comprising selecting pixels to be filtered from the pixels selected for examination.

15. (Previously presented) A method according to Claim 13, wherein the new value of the pixel is the mean value of the pixels that appear in the filtering window.

16. - 18. (Cancelled)

19. (Currently Amended) A block boundary filter~~for reducing visual artefacts due to block boundaries between decoded image blocks in a frame of a digital video signal~~, the filter being arranged to perform an adaptive block boundary filtering operation on a

block boundary formed between a first decoded image block on a first side of the block boundary and a second decoded image block on a second side of the block boundary, the first decoded image block having been encoded using a first type of prediction encoding method and the second decoded image block having been encoded using a second type of prediction encoding method, wherein the block boundary filter is arranged to ~~examine the types of the first and second prediction encoding methods to~~ determine a value of at least one parameter of the adaptive block boundary filtering operation ~~performed on the block boundary~~based on the types of the first and second prediction encoding methods.

20. (Previously presented) A block boundary filter according to Claim 19, wherein the frame comprises at least one region of image blocks and the filter is arranged to perform said adaptive block boundary filtering operation on the block boundary in dependence at least in part on a region type of an image block on a first side of the block boundary and a region type of an image block on a second side of the block boundary.

21. - 23. (Cancelled)

24. (Currently Amended)   A block boundary filter according to Claim 19, wherein said at least one parameter is selected from a group comprising: a number of pixels to be examined, a number of pixels to be filtered, ~~an activity measure providing an indication of the difference between pixel values on one side of the block boundary,~~ a size of a filtering window.

25. (Previously presented) A block boundary filter according to Claim 19, wherein the filter is arranged to select a number of pixels for examination from at least one side of the block boundary in dependence on an image content of the frame in the environment of the block boundary.

26. (Previously presented) A block boundary filter according to Claim 25, further arranged to select said number of pixels for examination in dependence on the difference in pixel value between pixels across the block boundary.

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27. (Previously presented) A block boundary filter according to Claim 19, wherein the filter is arranged to select a number of pixels for examination in dependence on the size of a quantization step used to quantize coefficients used in encoding the image blocks.

28. (Cancelled).

29. (Previously presented) A block boundary filter according to Claim 25, wherein the filter is arranged to truncate the number of pixels selected for examination in dependence on the type of prediction encoding method used to encode an image block in the environment of the block boundary.

30. - 31. (Cancelled)

32. (Previously presented) A block boundary filter according to Claim 19, wherein the filter is arranged to select certain pixels to be filtered and to determine a new value for each pixel to be filtered on the basis of pixels that appear in a filtering window set around the pixel.

33. (Previously presented) A block boundary filter according to Claim 32, wherein the filter is arranged to calculate the new value for each pixel to be filtered as a mean value of the pixels that appear in the filtering window.

34. - 36. (Cancelled)

37. (Previously presented) A video encoder comprising means for coding and means for decoding a digital video signal by blocks, a block type being defined according to the coding method for a block selected according to a predetermined set of coding types, which encoder comprises a filter for reducing visual artefacts due to a block boundary, wherein the filter is arranged to operate adaptively according to the block types of the frame in the environment of the block boundary.

38. (Previously presented) A video decoder comprising means for reducing visual artefacts in a frame of a digital video signal, which is coded by blocks and then decoded, a block type being defined according to the coding method for a block
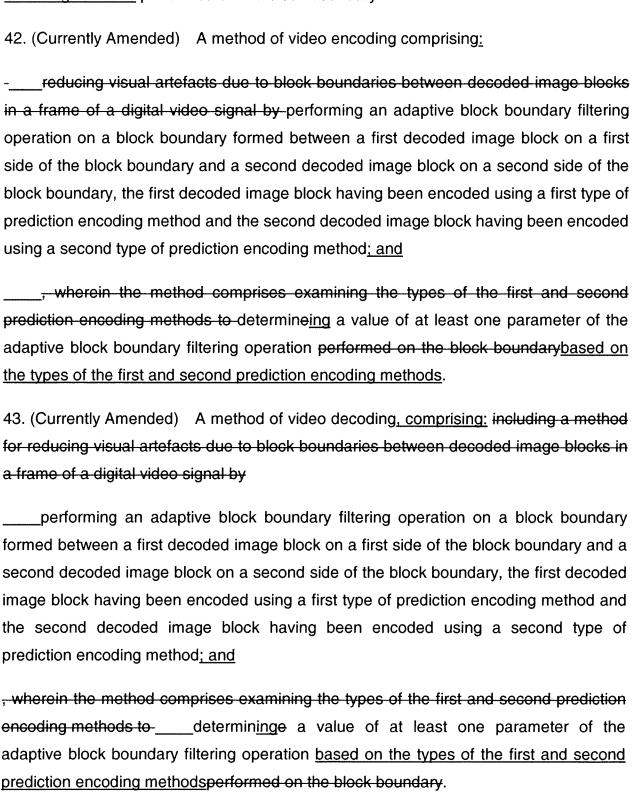
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selected according to a predetermined set of coding types, which video decoder comprises a filter for reducing visual artefacts due to a block boundary, wherein the filter is arranged to operate adaptively according to the block types of the frame in the environment of the block boundary.

39. (Previously presented) A video codec comprising means for coding and decoding a digital video signal by blocks, a block type being defined according to the coding method for a block selected according to a predetermined set of coding types, which video codec comprises a filter for reducing visual artefacts due to a block boundary, wherein the filter is arranged to operate adaptively according to the block types of the frame in the environment of the block boundary.

40. (Previously presented) A mobile terminal comprising a video codec which comprises means for coding and decoding a digital video signal by blocks, a block type being defined according to the coding method for a block selected according to a predetermined set of coding types, which video codec comprises a filter for reducing visual artefacts due to a block boundary, wherein the filter is arranged to operate adaptively according to the block types of the frame in the environment of the block boundary.

41. (Currently Amended) A storage medium comprising a software program for reducing visual artefacts due to block boundaries between decoded image blocks in a frame of a digital video signal, the software program comprising machine executable code for performing an adaptive block boundary filtering operation on a block boundary formed between a first decoded image block on a first side of the block boundary and a second decoded image block on a second side of the block boundary, the first decoded image block having been encoded using a first type of prediction encoding method and the second decoded image block having been encoded using a second type of prediction encoding method, wherein the software program comprises machine executable code for ~~examining the types of the first and second prediction encoding methods to~~ determine~~ing~~ a value of at least one parameter of the adaptive block

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boundary filtering operation based on the types of the first and second prediction encoding methods performed on the block boundary.

42. (Currently Amended)   A method of video encoding comprising:

- reducing visual artefacts due to block boundaries between decoded image blocks in a frame of a digital video signal by performing an adaptive block boundary filtering operation on a block boundary formed between a first decoded image block on a first side of the block boundary and a second decoded image block on a second side of the block boundary, the first decoded image block having been encoded using a first type of prediction encoding method and the second decoded image block having been encoded using a second type of prediction encoding method; and

_____, wherein the method comprises examining the types of the first and second prediction encoding methods to determineing a value of at least one parameter of the adaptive block boundary filtering operation performed on the block boundarybased on the types of the first and second prediction encoding methods.

43. (Currently Amended)   A method of video decoding, comprising: including a method for reducing visual artefacts due to block boundaries between decoded image blocks in a frame of a digital video signal by

_____performing an adaptive block boundary filtering operation on a block boundary formed between a first decoded image block on a first side of the block boundary and a second decoded image block on a second side of the block boundary, the first decoded image block having been encoded using a first type of prediction encoding method and the second decoded image block having been encoded using a second type of prediction encoding method; and

, wherein the method comprises examining the types of the first and second prediction encoding methods to _____determininge a value of at least one parameter of the adaptive block boundary filtering operation based on the types of the first and second prediction encoding methodsperformed on the block boundary.

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44.-53. (Cancelled)

54. (Currently Amended) A video encoder comprising a block boundary filter ~~for reducing visual artefacts due to block boundaries between decoded image blocks in a frame of a digital video signal, the filter being~~ arranged to perform an adaptive block boundary filtering operation on a block boundary formed between a first decoded image block on a first side of the block boundary and a second decoded image block on a second side of the block boundary, the first decoded image block having been encoded using a first type of prediction encoding method and the second decoded image block having been encoded using a second type of prediction encoding method, wherein the block boundary filter is arranged to ~~examine the types of the first and second prediction encoding methods to~~ determine a value of at least one parameter of the adaptive block boundary filtering operation based on the types of the first and second prediction encoding methods~~performed on the block boundary~~.

55. (Currently Amended) A video decoder comprising a block boundary filter ~~for reducing visual artefacts due to block boundaries between decoded image blocks in a frame of a digital video signal, the filter being~~ arranged to perform an adaptive block boundary filtering operation on a block boundary formed between a first decoded image block on a first side of the block boundary and a second decoded image block on a second side of the block boundary, the first decoded image block having been encoded using a first type of prediction encoding method and the second decoded image block having been encoded using a second type of prediction encoding method, wherein the block boundary filter is arranged to ~~examine the types of the first and second prediction encoding methods to~~ determine a value of at least one parameter of the adaptive block boundary filtering operation based on the types of the first and second prediction encoding methods~~performed on the block boundary~~.

56. (Currently Amended) A video codec comprising a block boundary filter ~~for reducing visual artefacts due to block boundaries between decoded image blocks in a frame of a digital video signal, the filter being~~ arranged to perform an adaptive block boundary filtering operation on a block boundary formed between a first decoded image

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block on a first side of the block boundary and a second decoded image block on a second side of the block boundary, the first decoded image block having been encoded using a first type of prediction encoding method and the second decoded image block having been encoded using a second type of prediction encoding method, wherein the block boundary filter is arranged to ~~examine the types of the first and second prediction encoding methods to~~ determine a value of at least one parameter of the adaptive block boundary filtering operation <u>based on the types of the first and second prediction encoding methods</u>~~performed on the block boundary~~.

57. (Currently Amended) A mobile terminal comprising a block boundary filter ~~for reducing visual artefacts due to block boundaries between decoded image blocks in a frame of a digital video signal, the filter being~~ arranged to perform an adaptive block boundary filtering operation on a block boundary formed between a first decoded image block on a first side of the block boundary and a second decoded image block on a second side of the block boundary, the first decoded image block having been encoded using a first type of prediction encoding method and the second decoded image block having been encoded using a second type of prediction encoding method, wherein the block boundary filter is arranged to ~~examine the types of the first and second prediction encoding methods to~~ determine a value of at least one parameter of the adaptive block boundary filtering operation <u>based on the types of the first and second prediction encoding methods</u>~~performed on the block boundary~~.

58. (Previously presented) A method according to claim 1, wherein the first and second prediction encoding methods are of the same type.

59. (Previously presented) A block boundary filter according to claim 19, wherein the first and second prediction encoding methods are of the same type.

60. (Previously presented) A storage medium according to claim 41, wherein the first and second prediction encoding methods are of the same type.

61. (Previously presented) A method of video encoding according to claim 42, wherein the first and second prediction encoding methods are of the same type.

62. (Previously presented) A method of video decoding according to claim 43, wherein the first and second prediction encoding methods are of the same type.

63. (Previously presented) A video encoder according to claim 54, wherein the first and second prediction encoding methods are of the same type.

64. (Previously presented) A video decoder according to claim 55, wherein the first and second prediction encoding methods are of the same type.

65. (Previously presented) A video codec according to claim 56, wherein the first and second prediction encoding methods are of the same type.

66. (Previously presented) A mobile terminal according to claim 57, wherein the first and second prediction encoding methods are of the same type.

67. (Previously Presented) A digital signal processor arranged to perform a method for reducing visual artefacts due to block boundaries according to claim 1.

68. (Currently Amended) A digital signal processor comprising a filtering block ~~for reducing visual artefacts due to block boundaries between decoded image blocks in a frame of a digital video signal, the filter block being~~ arranged to perform an adaptive block boundary filtering operation on a block boundary formed between a first decoded image block on a first side of the block boundary and a second decoded image block on a second side of the block boundary, the first decoded image block having been encoded using a first type of prediction encoding method and the second decoded image block having been encoded using a second type of prediction encoding method, wherein the filtering block is arranged to ~~examine the types of the first and second prediction encoding methods to~~ determine a value of at least one parameter of the adaptive block boundary filtering operation <u>based on the types of the first and second prediction encoding methods</u>~~performed on the block boundary~~.

69. (Currently Amended) A method ~~for reducing visual artefacts due to a block boundary between image blocks in a frame of a digital video signal~~, comprising:

performing a filtering operation on a block boundary that is dependent at least in part on a prediction encoding method used to encode an image block on a first side of the block boundary.

70. (Currently Amended)   A ~~filter~~apparatus comprising:

_____   a filter ~~for reducing visual artefacts due to a block boundary between image blocks in a frame of a digital video signal, the filter being~~ arranged to~~:~~

_perform a filtering operation on the block boundary in dependence at least in part on a prediction encoding method used to encode an image block on a first side of the block boundary.

71. (Previously presented) A video encoder comprising a filter according to Claim 70.

72. (Previously presented) A video decoder comprising a filter according to Claim 70.

73. (Previously presented) A mobile terminal comprising a filter according to Claim 70.

74. (Previously presented) A method according to claim 1, wherein the first and second type of prediction encoding method is selected from a group of prediction encoding methods comprising at least: intra coding, copy coding, motion-compensated prediction coding, and not-coded coding.

75. (Previously presented) A block boundary filter according to claim 19, wherein the first and second type of prediction encoding method is selected from a group of prediction encoding methods comprising at least: intra coding, copy coding, motion-compensated prediction coding, and not-coded coding.

76. (Previously presented) A storage medium according to claim 41, wherein the first and second type of prediction encoding method is selected from a group of prediction encoding methods comprising at least: intra coding, copy coding, motion-compensated prediction coding, and not-coded coding.

77. (Previously presented) A method of video encoding according to claim 42, wherein the first and second type of prediction encoding method is selected from a group of prediction encoding methods comprising at least: intra coding, copy coding, motion-compensated prediction coding, and not-coded coding.

78. (Previously presented) A method of video decoding according to claim 43, wherein the first and second type of prediction encoding method is selected from a group of prediction encoding methods comprising at least: intra coding, copy coding, motion-compensated prediction coding, and not-coded coding.

79. (Previously presented) A video encoder according to claim 54, wherein the first and second type of prediction encoding method is selected from a group of prediction encoding methods comprising at least: intra coding, copy coding, motion-compensated prediction coding, and not-coded coding.

80. (Previously presented) A video decoder according to claim 55, wherein the first and second type of prediction encoding method is selected from a group of prediction encoding methods comprising at least: intra coding, copy coding, motion-compensated prediction coding, and not-coded coding.

81. (Previously presented) A mobile terminal according to claim 57, wherein the first and second type of prediction encoding method is selected from a group of prediction encoding methods comprising at least: intra coding, copy coding, motion-compensated prediction coding, and not-coded coding.

82. (Previously presented) A method according to claim 69, wherein the first and second type of prediction encoding method is selected from a group of prediction encoding methods comprising at least: intra coding, copy coding, motion-compensated prediction coding, and not-coded coding.

83. (Previously presented) A block boundary filter according to claim 70, wherein the first and second type of prediction encoding method is selected from a group of

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prediction encoding methods comprising at least: intra coding, copy coding, motion-compensated prediction coding, and not-coded coding.